



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R04-OAR-2006-0651; FRL-9976-90-Region 4]

Air Plan Approval; GA; Permitting Revision

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve changes to the Georgia State Implementation Plan (SIP) submitted by the State of Georgia, through the Georgia Environmental Protection Division (GA EPD) of the Department of Natural Resources, on April 11, 2003. EPA is proposing to approve portions of a SIP revision which includes changes to Georgia's rules regarding emissions standards and permitting. This action is being proposed pursuant to the Clean Air Act (CAA or Act) and its implementing regulations.

DATES: Written comments must be received on or before **[insert date 30 days after date of publication in the Federal Register]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R04-OAR-2006-0651 at <http://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be

accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Richard Wong, Air Regulatory Management Section, Air Planning and Implementation Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960, or Joel Huey, Air Planning and Implementation Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. Mr. Wong can be reached by telephone at (404) 562-8726 or via electronic mail at wong.richard@epa.gov. Mr. Huey can be reached by telephone at (404) 562-9104 or via electronic mail at huey.joel@epa.gov.

SUPPLEMENTARY INFORMATION:

I. Background

On April 11, 2003, GA EPD submitted a SIP revision to EPA for approval that involves changes to Georgia's SIP regulations. In this action, EPA is proposing to approve the portion of the Georgia submission revising GA EPD Rule 391-3-1-.03(11)(b) – *Permit by Rule Standards*. This submission also seeks to revise Rule 391-3-1-.02(2)(nnn) – *NOx Emissions from Large Stationary Gas Turbines* and Rule 391-3-1-.02(5) – *Open Burning*. EPA is not taking action on the proposed changes to Rule 391-3-1-.02(2)(nnn) and Rule 391-3-1-.02(5) at this time. On

October 21, 2009, GA EPD submitted a letter withdrawing from the submittal a proposed revision to Georgia Rule 391-3-1-.02(2)(qqq) – *Volatile Organic Compound From Extruded Polystyrene Products Manufacturing Utilizing a Blowing Agent*.¹ On January 5, 2017 (82 FR 1206), EPA approved changes to Rule 391-3-1-.01 – *Definitions* that were also included in the April 11, 2003, submittal.

II. Analysis of State’s Submittal

Rule 391-3-1-.03(11)(b) – Permit by Rule Standards

GA EPD’s Rule 391-3-1-.03(11)(b)6 establishes “permit by rule”² standards for cotton ginning operations and applies to facilities with a potential to emit in excess of the Part 70 program major source thresholds. The rule provides that cotton ginning operations shall be deemed to have a “permit by rule” if they (1) maintain a log of the monthly production, and (2) limit annual production to 65,000 standard bales of cotton during any twelve consecutive months.³ The rule also stipulates that sources having potential emissions greater than major source thresholds even after meeting these conditions, or that are unable to meet these conditions, must obtain a title V operating permit pursuant to Georgia’s Part 70 program. GA EPD’s March 14, 2003, submittal would change the annual production threshold to qualify for a “permit by rule” from 65,000 standard bales of cotton ginned per year (bales/year) to 120,000 bales/year.

¹ The October 21, 2009, letter is included in the docket for this action.

² Also known as an “exclusionary rule” or “prohibitory rule,” a “permit by rule” is an approach that State and local agencies can use to establish enforceable operational limits which ensure that a source’s potential emissions are below the major source threshold. *See, e.g.*, “Guidance an Enforceability Requirements for Limiting Potential to Emit through SIP and §112 Rules and General Permits,” Kathie A. Stein, Director, Air Enforcement Division, Office of Enforcement and Compliance Assurance, January 25, 1995.

³ In addition, GA EPD Rule 391-3-1-.03(11)(a)2 requires that any facility wishing to operate under the cotton ginning “permit by rule” shall certify its qualification in writing to the permitting authority, and the permitting authority shall grant the conditions and terms of the “permit by rule” by Certification letter to the facility.

Because of the mostly mechanical nature of the cotton ginning processes and the agricultural material handled, particulate matter (PM) is the primary regulated pollutant of concern. Georgia Rule 391-3-1-.02(2)(q) uses a process weight calculation to establish allowable PM emission rates (in pounds per hour) from cotton gins based upon the number of bales processed per hour. In support of GA EPD's April 11, 2003, submittal, the State provided a technical rationale intending to show, based upon the allowable emission rate under Rule 391-3-1-.02(2)(q), that increasing the cotton ginning "permit by rule" threshold of Rule 391-3-1-.03(11)(b)6 to 120,000 bales/year would still ensure that source emissions would not exceed the major source threshold.⁴ EPA notes, however, that an allowable emission rate alone does not constrain a source's "potential to emit," which is the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. *See, e.g.*, 40 CFR 52.21(b)(4) and 40 CFR 70.2. In addition, the emission rate that is allowable under Rule 391-3-1-.02(2)(q) changes according to a source's process rate (*i.e.*, bales ginned per hour) at any particular time. Therefore, EPA's evaluation of potential cotton ginning emissions is based upon the Agency's review of available PM emission factors for cotton ginning operations, in particular emission factors for PM₁₀ and PM_{2.5}.⁵

⁴ Email from Jimmy Johnston, GA EPD, to Stacey Harder, EPA Region 4, May 30, 2007.

⁵ Since at least 1995, EPA has considered the regulated form of PM for title V purposes to be particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers, or PM₁₀. *See* "Definition of Regulated Pollutant for Particulate Matter for Purposes of Title V," Lydia N. Wegman, October 16, 1995, *available at* <https://www.epa.gov/sites/production/files/2015-08/documents/pmregdef.pdf>. In 1997 EPA finalized new air quality standards to regulate particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers, or PM_{2.5}. *See* 62 FR 38652 (July 18, 1997). The definition of "regulated air pollutant" in 40 CFR 70.2 includes any pollutant for which a NAAQS has been promulgated, including PM_{2.5}.

EPA's Compilation of Air Emission Factors, AP-42, lists emission factors for typical cotton ginning configurations⁶ of 0.82 pound of PM₁₀ per bale (for Configuration No. 1, gins with high-efficiency cyclones on all exhaust streams) and 1.2 pounds of PM₁₀ per bale (for Configuration No. 2, gins with screened drums or cages on the lint cleaners and a battery condenser). But these are "D" and "E"-rated factors, meaning reliability of the factors is below average to poor. The AP-42 emission factors for cotton ginning were last updated in 1996 and do not include emission factors for PM_{2.5}. EPA's 1998 "Potential to Emit (PTE) Guidance for Specific Source Categories" (1998 PTE Guidance)⁷ suggested possible prohibitory rule thresholds of 90,000 bales/year or 72,000 bales/year (for gins similar to Configuration No. 1 and Configuration No. 2, respectively). These numbers were derived by taking 90 percent (to provide a 10 percent safety margin) of the 100 tons per year (tpy) title V major source threshold and dividing by a "worst case" emission rate. The 90,000 bale/year and 72,000 bale/year thresholds were based upon emission factors of 2.0 pounds of PM₁₀ per bale and 2.5 pounds of PM₁₀ per bale, depending on the gin configuration, and were considered "very conservative (worse than the typical 'worst-case').".

EPA notes that there is more recent preliminary data to consider regarding cotton ginning emission factors. In an effort to develop PM emission factors that are representative of actual cotton ginning emissions, cotton gin associations across the U.S. funded a national study that was conducted during the period 2008-2012 and utilized data collection methodologies defined

⁶ Figure 9.7-1 of AP-42 shows a flow diagram of a typical cotton-ginning process, which includes an unloading system, No. 1 dryer and cleaner, No. 2 dryer and cleaner, No. 1 lint cleaner, No. 2 lint cleaner, mote fan, battery condenser and bailing system, master trash fan and overflow system.

⁷ "Potential to Emit (PTE) Guidance for Specific Source Categories," John S. Seitz, April 14, 1998.

by EPA.⁸ Peer reviewed articles published on the data gathered from the study suggest a PM₁₀ emission factor of close to 1.3 pounds per bale⁹ and a PM_{2.5} emission factor of about 0.15 pound per bale¹⁰ for the most common cotton gin configurations. Subsequently, an environmental scientist analyzed this national study data in light of the 1996 AP-42 data and EPA's 2013 emission factor development procedures¹¹ and developed a suggested PM₁₀ emission factor of 1.0 pound per bale and a suggested PM_{2.5} emission factor of 0.10 pound per bale from typical cotton ginning operations.¹²

As noted above, GA EPD's March 14, 2003, submittal would change the cotton ginning "permit by rule" threshold from 65,000 bales/year to 120,000 bales/year. The approach of EPA's 1998 PTE Guidance for development of a "permit by rule" was to set thresholds that would provide a 10 percent margin of safety from the 100 tpy Part 70 program applicability criterion. Using Georgia's proposed cotton ginning "permit by rule" threshold of 120,000 bales/year, an emission factor of 1.5 pounds per bale would result in maximum annual emissions of 90 tpy. According to AP-42, typical cotton gin emission factors for PM₁₀ fall into the range of 0.82 pound per bale to 1.2 pounds per bale, which results in estimated annual PM₁₀ emissions of 49 tpy to 72 tpy from 120,000 bales ginned. And based upon data from the national study, a

⁸ Buser, M. D., Whitelock, D. P., Boykin, J. C., and Holt, G. A., Characterization of Cotton Gin Particulate Matter Emissions - Project Plan, *Journal of Cotton Science*, 16: 105-116 (2012), available at <https://www.cotton.org/journal/2012-16/2/upload/JCS16-105.pdf>.

⁹ Boykin, J.C., Buser, M.D., Whitelock, D.P., and Holt, G.A., (multiple articles), *Journal of Cotton Science*, 18:173-182, 183-194, 195-206, 216-225, 248-257, 258-267, 300-308, and 338-347 (2014), available at <http://www.cotton.org/journal/2014-18/index.cfm>.

¹⁰ Boykin, J.C., Buser, M.D., Whitelock, D.P., and Holt, G.A., (several articles), *Journal of Cotton Science*, 17:309-319, 320-332, 333-345, 357-367, 391-401; 402-413, 447-456, 489-499; and 357-367 (2013), available at <http://www.cotton.org/journal/2013-17/index.cfm>.

¹¹ See generally Eastern Research Group, Inc., *Recommended Procedures for Development of Emissions Factors and Use of the WebFIRE Database* (No. EPA-453/D-13-001) (August 2013), available at <http://www.epa.gov/ttnchie1/efpac/procedures/procedures81213.pdf>.

¹² See Thomas W. Moore, *Proposed Updates for AP-42 Cotton Gin Emission Factors*, p. 82 table 27b, M.S. Thesis, Oklahoma State University (May 2015).

typical cotton gin emission factor is likely to be in the range of 1.0 pound per bale to 1.3 pounds per bale, which would result in estimated annual PM₁₀ emissions in the range of 60 tpy to 78 tpy from 120,000 bales ginned. Thus, the level of annual PM₁₀ emissions from typical cotton ginning operations, as suggested by emission factors from AP-42 and the national study, provides a significant margin of safety from the 100 tpy Part 70 program threshold. Estimated PM_{2.5} emissions would be much lower due to the significantly lower emission factor for that size indicator of total PM. This analysis supports approval of GA EPD's revision to its "permit by rule" threshold for cotton gins.

EPA believes that GA EPD's revision to Rule 391-3-1-.03(11)(b)6 will not degrade air quality because it does not change the level of pollutant emissions allowable for cotton ginning operations under the SIP. The impact of the revision would be that cotton ginning operations which process cotton in the range of 65,000 bales/year to 120,000 bales/year (*i.e.*, from the current "permit by rule" threshold to the new threshold) would now be able to choose to operate under a "permit by rule" rather than a standard operating permit as long as such sources maintain records of their production, in accordance with Rule 391-3-1-.03(11)(b)6(i)(I). In addition, all cotton ginning operations in Georgia will still be required to comply with the State's existing PM emission limit at Rule 391-3-1-.02(2)(q), which remains unchanged and requires compliance with a numerical limit on PM emissions based on the number of bales ginned per hour. Further, EPA notes that there are currently no PM nonattainment areas in the State of Georgia and that cotton gins in the State are located primarily in areas which tend to have ambient PM concentrations well below the PM NAAQS. Accordingly, EPA is proposing to approve this change to Rule 391-3-1-.03(11)(b)6 from GA EPD's April 11, 2003, submittal.

III. Incorporation by Reference

In this rule, EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, EPA is proposing to incorporate by reference the GA EPD Rule 391-3-1-.03(11)(b)6 – *Cotton ginning operations*, effective March 26, 2003, which revises permitting requirements for cotton ginning operations. EPA has made, and will continue to make, these materials generally available through www.regulations.gov and at the EPA Region 4 office (please contact the person identified in the “For Further Information Contact” section of this preamble for more information).

IV. Proposed Action

EPA is proposing to approve a portion of the State of Georgia’s April 11, 2003 submittal. Specifically, EPA is proposing to approve the change to GA EPD Rule 391-3-1-.03(11)(b)6 – *Cotton ginning operations*. EPA believes that the proposed change to the regulatory portion of the SIP is consistent with section 110 of the CAA and meets the regulatory requirements pertaining to SIPs. EPA also believes that the proposed change is consistent with CAA section 110(l), which states that the Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in CAA section 171), or any other applicable requirement of the Act.

V. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. *See* 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA’s role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely proposes to

approve state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and

- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

The SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: April 5, 2018.

Onis “Trey” Glenn, III,

Regional Administrator,

Region 4.

[FR Doc. 2018-07899 Filed: 4/13/2018 8:45 am; Publication Date: 4/16/2018]